

REMARKS

In the patent application, claims 1-12 are pending. In the office action, all pending claims are rejected.

Applicant has amended claims 1, 6 and 10 to include the limitation that the touch pad device comprises two sets of optical sensor components, each of which has at least two light emitters and one light receiver disposed substantially between the two light emitters, and that the light receiver receives light emitted from the emitters and reflected by the object. The support for these amendments can be found in Figure 1 and p.6, lines 27 to 30. No new matter has been introduced.

At section 2 of the office action, claims 1-12 are rejected under 103(a) as being unpatentable over *Agnew* (U.S. 2002/0084992 A1), in view of *Hasegawa et al.* (U.S. Patent No. 6,208,330, hereafter *Hasegawa*) and further in view of *Jambhekar et al.* (U.S. Patent No. 5,715,524, hereafter *Jambhekar*).

In rejecting claims 1, 6 and 10, the Examiner states that *Agnew* discloses a touch pad device having at least two light emitters and one light receiver to detect the presence of an object at the touch pad device. *Hasegawa* discloses a method of detecting the object by optical scanning/detection units by reflection. *Jambhekar* discloses a switch 127 (Figure 1).

It is respectfully submitted that *Agnew* discloses a touch pad device having two rows of light sensors 22 to determine the position of the object touching the touch pad based on the blocking of light emitted to the light sensors. In contrast, the changes in the mount of light reflected by the object touching the screen are used to provide the touch signal. Thus, the optical sensing method of the claimed invention is clearly distinguishable over the cited *Agnew* reference.

Hasegawa discloses using two optical scanning/detection units 10A, 10B disposed at two adjacent corners of a touch area to obtain the size and the distance of the touching object. In particular, if the object is small, it is assumed that a fingertip is used to touch the screen. In that case, each of the optical scanning/detection units 10A and 10B is used to determine the rough distance of the object based on the intensity of the reflected light back to the same unit (see the two-way arrows in beams 12 and 13 in Figure 1; col.5, lines 40-48), while scanning the object over a scanning angle 11A, 11B. If the detected object is large, it is assumed that a vibrating pen held by a fist is used to make an input. In that case, two vibration sensors 21A and 21B are used to detect the distance of the pen (see Figure 1; col.4, lines 1-12). *Hasegawa* does not disclose or even suggest that two sets of optical sensor components are disposed on opposite sides of the touch pad wherein each set of optical sensor components comprises two light emitters and a light receiver disposed between the light emitters.

Thus, the optical sensing method of the claimed invention is clearly distinguishable over the cited *Hasegawa* reference.

The Examiner admits that both *Agnew* and *Hasegawa* fail to disclose a device or process step for preventing unintended touch pad input resulting from accidental touching of the touch pad, but points to *Jambhekar* for such a feature. In particular, the Examiner points to *Jambhekar* for disclosing a switch 127.

It is respectfully submitted that *Jambhekar* discloses a touch screen 119 on a communication device for touch entry either from a first set of user functions when the moving housing element 109 is in a closed position, or from a second set of user functions when the moving housing element is in an opened position (see Abstract). The switch 127 is used to indicate to a data processor whether the first set of user functions or the second set of user functions should be used for touch entry. *Jambhekar* does not disclose or even suggest that a switch is used to prevent an unintended touch entry on the touch screen 119.

For the above reasons, claims 1, 6 and 10 are distinguishable over the cited *Agnew*, *Hasegawa* and *Jambhekar* references.

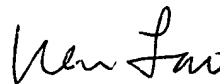
As for claims 2-5, 7-9, 11 and 12, they are dependent from claims 1, 6 and 10 and recite features not recited in claims 1, 6 and 10. For reasons regarding claims 1, 6 and 10 above, it is respectfully submitted that claims 2-5, 7-9, 11 and 12 are also distinguishable over the cited *Agnew*, *Hasegawa* and *Jambhekar* references.

CONCLUSION

As amended, claims 1-12 are distinguishable over the cited references. Early allowance of all pending claims is earnestly solicited.

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Respectfully submitted,



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